Ryoichi Tatara

List of Publications by Year
in descending order

53 papers	2,369 citations	218677 26 h-index	214800 47 g-index
54 all docs	54 docs citations	54 times ranked	2809 citing authors

#	Article	IF	Citations
1	Li⁺ solvation in glymeâ€“Li salt solvate ionic liquids. Physical Chemistry Chemical Physics, 2015, 17, 8248-8257.	2.8	222
2	Revealing electrolyte oxidation via carbonate dehydrogenation on Ni-based oxides in Li-ion batteries by in situ Fourier transform infrared spectroscopy. Energy and Environmental Science, 2020, 13, 183-199.	30.8	202
3	The Effect of Electrode-Electrolyte Interface on the Electrochemical Impedance Spectra for Positive Electrode in Li-Ion Battery. Journal of the Electrochemical Society, 2019, 166, A5090-A5098.	2.9	190
4	Mechanism of Li Ion Desolvation at the Interface of Graphite Electrode and Glymeâ€“Li Salt Solvate Ionic Liquids. Journal of Physical Chemistry C, 2014, 118, 20246-20256.	3.1	155
5	Solvent Activity in Electrolyte Solutions Controls Electrochemical Reactions in Li-Ion and Li-Sulfur Batteries. Journal of Physical Chemistry C, 2015, 119, 3957-3970.	3.1	135
6	Li⁺ Solvation and Ionic Transport in Lithium Solvate Ionic Liquids Diluted by Molecular Solvents. Journal of Physical Chemistry C, 2016, 120, 15792-15802.	3.1	114
7	Solvent-Dependent Oxidizing Power of LiI Redox Couples for Li-O2 Batteries. Joule, 2019, 3, 1106-1126.	24.0	82
8	One-pot pyrolysis of lithium sulfate and graphene nanoplatelet aggregates: in situ formed Li₂S/graphene composite for lithiumâ€“sulfur batteries. Nanoscale, 2015, 7, 14385-14392.	5.6	73
9	Oxygen Reduction Reaction in Highly Concentrated Electrolyte Solutions of Lithium Bis(trifluoromethanesulfonyl)amide/Dimethyl Sulfoxide. Journal of Physical Chemistry C, 2017, 121, 9162-9172.	3.1	70
10	100 m Long Thermally Drawn Supercapacitor Fibers with Applications to 3D Printing and Textiles. Advanced Materials, 2020, 32, e2004971.	21.0	68
11	Enhanced Cycling Performance of Ni-Rich Positive Electrodes (NMC) in Li-Ion Batteries by Reducing Electrolyte Free-Solvent Activity. ACS Applied Materials & Interfaces, 2019, 11, 34973-34988.	8.0	63
12	Three-Dimensionally Hierarchical Ni/Ni₃S₂/S Cathode for Lithiumâ€“Sulfur Battery. ACS Applied Materials & Interfaces, 2017, 9, 38477-38485.	8.0	60
13	Molecular Design of Stable Sulfamide- and Sulfonamide-Based Electrolytes for Aprotic Li-O2 Batteries. CheM, 2019, 5, 2630-2641.	11.7	53
14	Molecularly Tunable Polyanions for Single-Ion Conductors and Poly(solvate ionic liquids). Chemistry of Materials, 2021, 33, 524-534.	6.7	53
15	Stability of Glyme Solvate Ionic Liquid as an Electrolyte for Rechargeable Liâ^'O₂ Batteries. ACS Applied Materials & Interfaces, 2017, 9, 6014-6021.	8.0	52
16	Electrolyte Composition in Li/O₂ Batteries with LiI Redox Mediators: Solvation Effects on Redox Potentials and Implications for Redox Shuttling. Journal of Physical Chemistry C, 2018, 122, 1522-1534.	3.1	51
17	Application of Ionic Liquid as K-Ion Electrolyte of Graphite//K₂Mn[Fe(CN)₆] Cell. ACS Energy Letters, 2020, 5, 2849-2857.	17.4	51
18	Editors' Choiceâ€”Coating-Dependent Electrode-Electrolyte Interface for Ni-Rich Positive Electrodes in Li-Ion Batteries. Journal of the Electrochemical Society, 2019, 166, A1022-A1030.	2.9	41

#	Article	IF	Citations
19	Graphiteâ€“Lithium Sulfide Battery with a Single-Phase Sparingly Solvating Electrolyte. ACS Energy Letters, 2020, 5, 1-7.	17.4	41
20	Active material and interphase structures governing performance in sodium and potassium ion batteries. Chemical Science, 2022, 13, 6121-6158.	7.4	41
21	One-step, template-free synthesis of highly porous nitrogen/sulfur-codoped carbons from a single protic salt and their application to CO₂ capture. Journal of Materials Chemistry A, 2015, 3, 17849-17857.	10.3	36
22	Solvate electrolytes for Li and Na batteries: structures, transport properties, and electrochemistry. Physical Chemistry Chemical Physics, 2021, 23, 21419-21436.	2.8	32
23	Solvate Ionic Liquid, [Li(triglyme)1][NTf2], as Electrolyte for Rechargeable Liâ€“Air Battery: Discharge Depth and Reversibility. Chemistry Letters, 2013, 42, 1053-1055.	1.3	29
24	Tuning NaO₂ Cube Sizes by Controlling Na⁺ and Solvent Activity in Naâ€“O₂ Batteries. Journal of Physical Chemistry C, 2018, 122, 18316-18328.	3.1	29
25	Solvent- and Anion-Dependent Li⁺â€“O₂^{â€“} Coupling Strength and Implications on the Thermodynamics and Kinetics of Liâ€“O₂ Batteries. Journal of Physical Chemistry C, 2020, 124, 4953-4967.	3.1	29
26	Concentrated Electrolytes for Enhanced Stability of Al-Alloy Negative Electrodes in Li-Ion Batteries. Journal of the Electrochemical Society, 2019, 166, A1867-A1874.	2.9	28
27	Structural Effects of Solvents on Li-Ion-Hopping Conduction in Highly Concentrated LiBF₄/Sulfone Solutions. Journal of Physical Chemistry B, 2021, 125, 6600-6608.	2.6	28
28	Suppression of Water Absorption by Molecular Design of Ionic Liquid Electrolyte for Liâ€“Air Battery. Advanced Energy Materials, 2017, 7, 1601753.	19.5	27
29	KFSA/glyme electrolytes for 4 V-class K-ion batteries. Journal of Materials Chemistry A, 2020, 8, 23766-23771.	10.3	26
30	Understanding the Reductive Decomposition of Highly Concentrated Li Salt/Sulfolane Electrolytes during Li Deposition and Dissolution. ACS Applied Energy Materials, 2021, 4, 1851-1859.	5.1	24
31	High Transference Number of Na Ion in Liquid-State Sulfolane Solvates of Sodium Bis(fluorosulfonyl)amide. Journal of Physical Chemistry C, 2020, 124, 4459-4469.	3.1	23
32	1,3,2-Dioxathiolane 2,2-Dioxide as an Electrolyte Additive for K-Metal Cells. ACS Energy Letters, 2021, 6, 3643-3649.	17.4	23
33	Brushâ€First ROMP of poly(ethylene oxide) macromonomers of varied length: impact of polymer architecture on thermal behavior and Li⁺ conductivity. Journal of Polymer Science Part A, 2019, 57, 448-455.	2.3	22
34	Impact of Newly Developed Styreneâ€“Butadieneâ€“Rubber Binder on the Electrode Performance of High-Voltage LiNi_{0.5}Mn_{1.5}O₄ Electrode. ACS Applied Energy Materials, 2020, 3, 7978-7987.	5.1	22
35	Highly concentrated LiN(SO2CF3)2/dinitrile electrolytes: Liquid structures, transport properties, and electrochemistry. Journal of Chemical Physics, 2020, 152, 104502.	3.0	20
36	All-Solid-State Potassium Polymer Batteries Enabled by the Effective Pretreatment of Potassium Metal. ACS Energy Letters, 2022, 7, 2244-2246.	17.4	20

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37	Structures and Electrochemistry of Î³-Butyrolactone Solvates of Na Salts. Journal of Physical Chemistry C, 2020, 124, 15800-15811.	3.1	17
38	Amphoteric water as acid and base for protic ionic liquids and their electrochemical activity when used as fuel cell electrolytes. Faraday Discussions, 2017, 206, 353-364.	3.2	16
39	Quantitative Mapping of Molecular Substituents to Macroscopic Properties Enables Predictive Design of Oligoethylene Glycol-Based Lithium Electrolytes. ACS Central Science, 2020, 6, 1115-1128.	11.3	15
40	Effect of Anion in Glyme-based Electrolyte for Li-O₂ Batteries: Stability/Solubility of Discharge Intermediate. Chemistry Letters, 2017, 46, 573-576.	1.3	14
41	Thermodynamic Effect of Anion Activity on Electrochemical Reactions Involving Li⁺ Ions in Roomâ€Temperature Ionic Liquids. ChemElectroChem, 2019, 6, 4444-4449.	3.4	12
42	Design of S-Substituted Fluorinated Aryl Sulfonamide-Tagged (S-FAST) Anions To Enable New Solvate Ionic Liquids for Battery Applications. Chemistry of Materials, 2019, 31, 7558-7564.	6.7	11
43	The Role of Diphenyl Carbonate Additive on the Interfacial Reactivity of Positive Electrodes in Li-ion Batteries. Journal of the Electrochemical Society, 2020, 167, 040522.	2.9	8
44	Transport Properties of Flexible Composite Electrolytes Composed of Li_{1.5}Al_{0.5}Ti_{1.5}(PO₄)₃ and a Poly(vinylidene fluoride-co-hexafluoropropylene) Gel Containing a Highly Concentrated Li[N(SO₂CF₃)₂]/Sulfolane Electrolyte. ACS Omega, 2021, 6, 16187-16193.	3.5	7
45	Na Diffusion in Hard Carbon Studied with Positive Muon Spin Rotation and Relaxation. ACS Physical Chemistry Au, 2022, 2, 98-107.	4.0	7
46	Design of Polymer Network and Li⁺ Solvation Enables Thermally and Oxidatively Stable, Mechanically Reliable, and Highly Conductive Polymer Gel Electrolyte for Lithium Batteries. Journal of the Electrochemical Society, 2021, 168, 090538.	2.9	6
47	Effect of Crystallinity of Synthetic Graphite on Electrochemical Potassium Intercalation into Graphite. Electrochemistry, 2021, 89, 433-438.	1.4	5
48	Effect of Substituted Styreneâ€Butadiene Rubber Binders on the Stability of 4.5 Vâ€Charged LiCoO₂ Electrode. ChemElectroChem, 2021, 8, 4345-4352.	3.4	5
49	Multiâ€Enzymeâ€Modified Bioanode Utilising Starch as a Fuel. ChemElectroChem, 2021, 8, 4199-4206.	3.4	4
50	Impact of Surface Hydrophilicity of Gas-Diffusion-Type Biocathodes on Their Oxygen Reduction Ability for Biofuel Cells. Journal of the Electrochemical Society, 2021, 168, 074506.	2.9	3
51	Highly Concentrated NaN(SO₂F)₂/3-Methylsulfolane Electrolyte Solution Showing High Na-Ion Transference Number under Anion-Blocking Conditions. Electrochemistry, 2021, 89, 590-596.	1.4	3
52	Hydrate Melt Electrolyte for Aqueous K-Ion Batteries. ECS Meeting Abstracts, 2021, MA2021-02, 218-218.	0.0	1
53	Multiâ€Enzymeâ€Modified Bioanode Utilising Starch as a Fuel. ChemElectroChem, 2021, 8, 4160.	3.4	0